NJS -MM- TCE
RECEIVED ON 21/08/17
CHRONO IN NO N26038

KEC	WATERLEAU protecting the 4 elements
PROJECT	CONTRACT S1e - SEWAGE TREATMENT PLANTS AT DODDABELE AND YELLAMALLAPPACHETTY AND INTERMEDIATE SEWAGE PUMPING STATION AND PUMPING MAINS AT SADARMANGALA
CLIENT	BANGALORE WATER SUPPLY & SEWERAGE BOARD
CONSULTANT	NIPPON JOGESUIDO SEKKEI CO. LTD. MOTT MACDONAL LTD. TATA CONSULTING ENGINEERS LTD. INDIA
CONTRACTOR	KEC-WATERLEAU JV
E&I SYSTEM INTEGRATOR	SCHNEIDER-ELECTRIC INDIA PVT. LTD. Schneider Electric
TITLE	ELECTRICAL LOAD LIST FOR YELLAMALLAPPACHETTY
DOC. NO.	A4-KT001-YSP-E-01-01

NJS – MM – TCE / BWSSB

DRAWING / DOCUMENT REVIEW STATUS

NJS -MM- TCE
RECEIVED ON 11.09.17
CHRONO IN NO N26159

Date of Receipt: 11/09/17

✓	A	Approved, manufacture / Construction may commence.
○	B	Acceptable subject to changes indicated. Resubmit for approval but manufacture / construction may commence.
○	C	Amend as comments indicated and resubmit for approval
○	D	Comments noted in letter/memo attached to approval. Transmittal Nr. ..... Dated ..... Amend as comments indicated and resubmit for approval
○	E	Amend as comments indicated and resubmit for record.
○	F	Comments noted in letter/memo attached to forwarding. Transmittal Nr. ..... Dated ..... Amend as comments indicated and resubmit for record.
○	G	Drawing of this category is for information and not required to be approved.
○	H	Returned the document without checking

Approval of drawing/documents does not absolve Contractor/Vendor from any responsibilities for their accuracy or for the design, performance and safety of the Plant/Works of any other obligations under the contract and Indian statutory laws nor does it limit the employer's right under the Contract.

For NJS-MM-TCE — Verified By : _____ Date : 12/09/17

For BWSSB — Checked By : S.E.E.(Elec.) Date : 20/9/17

Reviewed By : _____ Date : 21/9/17

MOTT CONSULTANT * Bangalore *

Approved By Chief Engineer (Kaveri) _____ Date : 22-09-17

Rev No	Date of Submission	Description	Prepared by	Checked by	Approved by
R4	18-Aug-17	Submitted for Code A Approval	NC	NC	HC
R3	27-Mar-17	Submitted for Code A Approval	NC	NC	HC

Project:	Bangalore Water Supply & Sewerage Project(II). Treatment Plants at Doddabelle & Yellamallappachetty and Intermediate Sewage Pumping Station and Pumping Mains at Sadarmangala
Client	Bangalore Water Supply & Sewerage Board (BWSSB)
JICA	Nippon Jogesuido Sekkei Co., Ltd., (Japan)
Consultant	Mott Macdonald Ltd., (UK)
	Tata Consulting Engineers Ltd., (India)
CONTRACTOR	KEC-WATERLEAU JV
E&I SYSTEM INTEGRATOR	SCHNEIDER-ELECTRIC INDIA PVT. LTD.
Doc. Name	ELECTRICAL LOAD LIST FOR YELLAMALLAPPACHETTY
Doc. No.	A4-KT001-YSP-E-01-01

Schneider Electric

ELECTRICAL LOAD LIST - YELLAMALLAPPACHETTY STP

Sr.No	DESCRIPTION	Min. Working Units (Nos.)	Min. Standby Units (Nos.)	Pump Capacity (m3/hr)	Pump Head (mwc)	Min. Pump efficiency (%)	BKW requirement	KW of the Motor selected (KW)	Load Factor / Duty Factor	Total Working Load (KW)	Total Standby Load (KW)	Power Factor	Load Factor	Diversity Factor	Supply Voltage (V)	Feeder Type	Duty cycle (C/I)	Continuous Runing Load in (KVA)
Raw Sewage pumping station MCC																		
1	Monorail Hoist (3 T)	1	0						0.9	0	0	0.8	1	1	415	Supply feeder		
a	Hoisting Motor	1	0	1	-	-	-	3.7	0.5	1.85	0	0.8	1	1	415	RDOL	I	2.3125
b	Travelling Motor	1	0	1	-	-	-	0.37	0.5	0.185	0	0.8	1	1	415	RDOL	I	0.23125
2	Coarse Screen Control Panel	1	0	-	-	-	-	3	0.9	2.7	0	0.8	1	1	415	Supply feeder	C	3.375
3	Dewatering Pump 1	1	0	20	20	32	4.37	5.62	1	4.37	0	0.8	1	1	415	DOL	I	5.4625
4	Dewatering Pump 2	0	1	20	20	32	4.37	5.62	1	0	4.37	0.8	1	1	415	DOL	I	0
5	TSPS Pump 1	1	0	900	25	80	79.81	112.5	1	79.81	0	0.8	1	1	415	Soft starter	C	99.7625
6	TSPS Pump 2	1	0	900	25	80	79.81	112.5	1	79.81	0	0.8	1	1	415	Soft starter	C	99.7625
7	TSPS Pump 3	0	1	900	25	80	79.81	112.5	1	0	79.81	0.8	1	1	415	Soft starter	C	0
8	Exhaust Fan DB	1	0	-	-	-	-	1	1	1	0	0.8	1	1	415	Supply feeder	C	1.25
9	PDB for Motorized Valve	1	0	-	-	-	-	-	-	-	-	-	-	-	-	Supply feeder	-	-
a	AL TSPS pump 1	1	0	-	-	-	-	1.2	0.5	0.6	0.6	0.8	1	1	415	Supply feeder	I	0.75
b	AL TSPS pump 2	1	0	-	-	-	-	1.2	0.5	0.6	0.6	0.8	1	1	415	Supply feeder	I	0.75
c	AL TSPS pump 3	1	0	-	-	-	-	1.2	0.5	0.6	0.6	0.8	1	1	415	Supply feeder	I	0.75
d	Common header	1	0	-	-	-	-	3.3	0.5	1.65	1.65	0.8	1	1	415	Supply feeder	I	2.0625
e	Rotable actuator	1	0	-	-	-	-	0.85	0.5	0.425	0.425	0.8	1	1	415	Supply feeder	I	0.53125
10	AC	1	0	-	-	-	2	2	1	2	0	0.8	1	1	415	Supply feeder	C	2.5
Chemical Building MCC																		
1	Alum Dosing Pump 1	1	0	0.11	20	90	0.257	0.37	1	0.257	0	0.8	1	1	415	VFD	C	0.32125
2	Alum Dosing Pump 2	1	0	0.11	20	90	0.257	0.37	1	0.257	0	0.8	1	1	415	VFD	C	0.32125
3	Alum Dosing Pump 3	1	0	0.11	20	90	0.257	0.37	1	0.257	0	0.8	1	1	415	VFD	C	0.32125
4	Alum Dosing Pump 4	1	0	0.11	20	90	0.257	0.37	1	0.257	0	0.8	1	1	415	VFD	C	0.32125
5	Alum Dosing Pump 5	0	1	0.11	20	90	0.257	0.37	1	0	0.257	0.8	1	1	415	VFD	C	0
6	Alum Dosing Pump 6	0	1	0.11	20	90	0.257	0.37	1	0	0.257	0.8	1	1	415	VFD	C	0
7	Alum Solution Tank mixer 1	1	0	-	-	-	0.46	0.75	0.9	0.675	0	0.8	1	1	415	DOL	C	0.84375
8	Alum Solution Tank mixer 2	0	1	-	-	-	0.46	0.75	0.9	0	0.675	0.8	1	1	415	DOL	C	0
9	Monorail Hoist (1 T)	1	0	-												Supply feeder		
a	Hoisting Motor	1	0	-	-	-	-	1.1	1	1.1	0	0.8	1	1	415	RDOL	I	1.375

Project :	Bangalore Water Supply & Sewerage Project(II). Treatment Plants at Doddabelle & Yellamallappachetty and Intermediate Sewage Pumping Station and Pumping Mains at Sadarmangala
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Consultant	Nippon Jogesuido Sekkei Co., Ltd., (Japan) Mott Macdonald Ltd., (UK) Tata Consulting Engineers Ltd., (India)
CONTRACTOR	KEC-WATERLEAU JV
E&I SYSTEM INTEGRATOR	SCHNEIDER-ELECTRIC INDIA PVT. LTD.
Doc. Name	ELECTRICAL LOAD LIST FOR YELLAMALLAPPACHETTY
Doc. No.	A4-KT001-YSP-E-01-01

Schneider Electric

ELECTRICAL LOAD LIST - YELLAMALLAPPACHETTY STP

Sr.No	DESCRIPTION	Min. Working Units (Nos.)	Min. Standby Units (Nos.)	Pump Capacity (m3/hr)	Pump Head (mwc)	Min. Pump efficiency (%)	BKW requirement	KW of the Motor selected (KW)	Load Factor / Duty Factor	Total Working Load (KW)	Total Standby Load (KW)	Power Factor	Load Factor	Diversity Factor	Supply Voltage (V)	Feeder Type	Duty cycle (C/I)	Continuous Runing Load in (KVA)
b	Travelling Motor	1	0	-	-	-	-	0.37	1	0.37	0	0.8	1	1	415	RDOL	I	0.4625
10	AC	2	0	-	-	-	-	2	1	4	0	0.8	1	1	415	Supply feeder	C	5
	Chlorination MCC																	
1	Motorized Monorail Hoist (3 T)	1	0													Supply feeder	I	
a	Hoisting Motor	1	0	-	-	-	-	3.7	1	3.7	0	0.8	1	1	415	RDOL	I	4.625
b	Travelling Motor	1	0	-	-	-	-	0.37	1	0.37	0	0.8	1	1	415	RDOL	I	0.4625
2	Plant Water Pump 1	1	0	57	44	61	11.43	15	1	11.43	0	0.8	1	1	415	Star Delta	C	14.2875
3	Plant Water Pump 2	1	0	57	44	61	11.43	15	1	11.43	0	0.8	1	1	415	Star Delta	C	14.2875
4	Plant Water Pump 3	0	1	57	44	61	11.43	15	1	0	11.43	0.8	1	1	415	Star Delta	C	0
5	Chlorine Control Panel	1	0	-	-	-	12	12	0.75	9	0	0.8	1	1	415	Supply feeder	I	11.25
6	Land scaping & Flushing Pump 1	1	0	20	25	55	2.53	3.75	1	2.53	0	0.8	1	1	415	DOL	C	3.1625
7	Land scaping & Flushing Pump 2	0	1	20	25	55	2.53	3.75	1	0	2.53	0.8	1	1	415	DOL	C	0
8	Potable drain Pump 1	1	0	35	15	34	4.29	5.62	1	4.29	0	0.8	1	1	415	DOL	C	5.3625
9	Potable drain Pump 2	0	1	35	15	34	4.29	5.62	1	0	4.29	0.8	1	1	415	DOL	C	0
10	Potable drain Pump for N pit	1	0	5	10	12	1.16	1.5	1	1.16	0	0.8	1	1	415	DOL	C	1.45
	Head Works MCC																	
1	Medium Screen Control Panel	1	0	-	-	-	-	4.5	0.8	3.6	0	0.8	1	1	415	Supply Feeder	C	4.5
2	Grit Mechanism 1	1	0	-	-	-	-	0.75	0.8	0.6	0	0.8	1	1	415	DOL	C	0.75
3	Grit Mechanism 2	1	0	-	-	-	-	0.75	0.8	0.6	0	0.8	1	1	415	DOL	C	0.75
4	Rake Classifier & Washer 1	1	0	-	-	-	-	1.5	0.8	1.2	0	0.8	1	1	415	DOL	C	1.5
5	Rake Classifier & Washer 2	1	0	-	-	-	-	1.5	0.8	1.2	0	0.8	1	1	415	DOL	C	1.5
6	Grit Conveyor	1	0	-	-	-	-	2.2	0.8	1.76	0	0.8	1	1	415	DOL	C	2.2
7	Organic Pump 1	1	0	-	-	-	-	0.75	0.8	0.6	0	0.8	1	1	415	DOL	C	0.75
8	Organic Pump 2	0	1	-	-	-	-	0.75	0.8	0	0.6	0.8	1	1	415	DOL	C	0
9	Feeder for Potable actuator	1	0	-	-	-	-	0.85	0.8	0.68	0	0.8	1	1	415	Supply Feeder	I	0.85

NMT CONSULTANTS Bangalore

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Consultant	Nippon Jogesuido Sekkei Co., Ltd., (Japan) Mott Macdonald Ltd., (UK) Tata Consulting Engineers Ltd., (India)
CONTRACTOR	KEC-WATERLEAU JV
E&I SYSTEM INTEGRATOR	SCHNEIDER-ELECTRIC INDIA PVT. LTD.
Doc. Name	ELECTRICAL LOAD LIST FOR YELLAMALLAPPACHETTY
Doc. No.	A4-KT001-YSP-E-01-01

Schneider Electric

ELECTRICAL LOAD LIST - YELLAMALLAPPACHETTY STP

Sr.No	DESCRIPTION	Min. Working Units (Nos.)	Min. Standby Units (Nos.)	Pump Capacity (m3/hr)	Pump Head (mwc)	Min. Pump efficiency (%)	BKW requirement	KW of the Motor selected (KW)	Load Factor / Duty Factor	Total Working Load (KW)	Total Standby Load (KW)	Power Factor	Load Factor	Diversity Factor	Supply Voltage (V)	Feeder Type	Duty cycle (C/I)	Continuous Runing Load in (KVA)
Lighting MCC																		
1	Main Lighting Panel Typical Lighting DB Exhaust fan DB Metal Clad DB	1	0					125	0.8	100		0.8			415	Supply Feeder	C	125
Centrifuge MCC																		
1	Monorail Hoist (5 T)				-	-	-	-	-	-	-	-	-	-	-	Supply Feeder	I	
a	Hoisting Motor	1	0	-	-	-	-	3.7	1	3.7	0	0.8	1	1	415	RDOL	I	4.625
b	Travelling Motor	1	0	-	-	-	-	0.37	1	0.37	0	0.8	1	1	415	RDOL	I	0.4625
2	Plant Drain Pump 1	1	0	103	25	70	10.22	18.75	1	10.22	0	0.8	1	1	415	Star Delta	I	12.775
3	Plant Drain Pump 2	0	1	103	25	70	10.22	18.75	1	0	10.22	0.8	1	1	415	Star Delta	I	0
4	Centrifuge Feed Pump 1	1	0	20	20	39.43	2.81	5.5	1	5.5	0	0.8	1	1	415	VFD	C	6.875
5	Centrifuge Feed Pump 2	0	1	20	20	39.43	2.81	5.5	1	0	5.5	0.8	1	1	415	VFD	C	0
6	Centrifuge Panel 1	1	0	-	-	-	-	35.5	1	35.5	0	0.8	1	1	415	Supply Feeder	C	44.375
7	Centrifuge Panel 2	0	1	-	-	-	-	35.5	1	0	35.5	0.8	1	1	415	Supply Feeder	C	0
8	Polymer batch tank mixer 1	1	0	-	-	-	1.59	2.2	1	1.59	0	0.8	1	1	415	DOL	C	1.9875
9	Polymer batch tank mixer 2	0	1	-	-	-	1.59	2.2	1	0	1.59	0.8	1	1	415	DOL	C	0
10	Polymer Metering Pump 1	1	0	1.23	10	90	0.625	1.1	1	0.625	0	0.8	1	1	415	VFD	C	0.78125
11	Polymer Metering Pump 2	0	1	1.23	10	90	0.625	1.1	1	0	0.625	0.8	1	1	415	VFD	C	0
12	Sludge Conveyor	1	0	-	-	-	-	2.2	1	2.2	0	0.8	1	1	415	DOL	C	2.75
13	Gravity Sludge Thickener 1	1	0	-	-	-	-	1.1	1	1.1	0	0.8	1	1	415	DOL	C	1.375
14	Gravity Sludge Thickener 2	1	0	-	-	-	-	1.1	1	1.1	0	0.8	1	1	415	DOL	C	1.375
15	Sludge storage tank mixer 1	1	0	-	-	-	-	5.5	1	5.5	0	0.8	1	1	415	Star Delta	C	6.875
16	Sludge storage tank mixer 2	0	1	-	-	-	-	5.5	1	0	5.5	0.8	1	1	415	Star Delta	C	0
17	Thickened Sludge Pump 1	1	0	8.5	15	41.44		3.7	1	3.7	0	0.8	1	1	415	VFD	C	4.625
18	Thickened Sludge Pump 2	1	0	8.5	15	41.44		3.7	1	3.7	0	0.8	1	1	415	VFD	C	4.625
19	Thickened Sludge Pump 3	0	1	8.5	15	41.44		3.7	1	0	3.7	0.8	1	1	415	VFD	C	0
20	DB for exhaust fan	1	0	-	-	-	-	2	1	2	0	0.8	1	1	415	Supply Feeder	C	2.5
21	Screw feeder for polydosing	1	0	-	-	-	-	0.37	1	0.37	0	0.8	1	1	415	DOL	C	0.4625
22	Dewatering Pump 1 for Centrifuge	1	0	5	10	12	1.16	1.5	1	1.16	0	0.8	1	1	415	Star Delta	I	1.45

NMT CONSULTANTS

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Sr.No	DESCRIPTION	Min. Working Units (Nos.)	Min. Standby Units (Nos.)	Pump Capacity (m3/hr)	Pump Head (mwc)	Min. Pump efficiency (%)	BKW requirement	KW of the Motor selected (KW)	Load Factor / Duty Factor	Total Working Load (KW)	Total Standby Load (KW)	Power Factor	Load Factor	Diversity Factor	Supply Voltage (V)	Feeder Type	Duty cycle (C/I)	Continuous Runing Load in (KVA)
23	Dewatering Pump 2 for Centrifuge	0	1	5	10	12	1.16	1.5	1	0	1.16	0.8	1	1	415	Star Delta	I	0
24	Dewatering Pump 1 for Thickened feed	1	0	5	10	12	1.16	1.5	1	1.16	0	0.8	1	1	415	Star Delta	I	1.45
25	Dewatering Pump 2 for Thickened feed	0	1	5	10	12	1.16	1.5	1	0	1.16	0.8	1	1	415	Star Delta	I	0
26	Mot Valve for Sludge hopper	1	0	-	-	-	-	0.55	1	0.55	0	0.8	1	1	415	Supply Feeder	I	0.6875
27	Gravity Sludge thickener lifting drive 1	1	0	-	-	-	-	0.75	1	0.75	0	0.8	1	1	415	DOL	C	0.9375
28	Gravity Sludge thickener lifting drive 2	1	0	-	-	-	-	0.75	1	0.75	0	0.8	1	1	415	DOL	C	0.9375
29	PDB for valve	1	0	-	-	-	-	-	-	-	-	-	-	-	-	Supply feeder	-	-
a	Thickened sludge pump 1 Inlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
b	Thickened sludge pump 2 Inlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
c	Thickened sludge pump 3 Inlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
d	Thickened sludge pump 1 Outlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
e	Thickened sludge pump 2 Outlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
f	Thickened sludge pump 3 Outlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
g	Centrifuge Feed pump 1 Inlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
h	Centrifuge Feed pump 2 Inlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
i	Centrifuge Feed pump 1 Outlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
j	Centrifuge Feed pump 2 Outlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
k	Centrifuge pumps common header	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
l	Sludge storage tank 1 Inlet	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
m	Sludge storage tank 2 Inlet	1	0	-	-	-	-											

SBR MCC

1	SBR Mixer 1	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
2	SBR Mixer 2	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
3	SBR Mixer 3	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
4	SBR Mixer 4	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
5	SBR Mixer 5	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
6	SBR Mixer 6	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
7	SBR Mixer 7	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	10.8
8	SBR Mixer 8	1	0	-	-	-	-	9.6	0.9	8.64	0	0.8	1	1	415	Star Delta	C	0
9	SBR Mixer 9	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
10	SBR Mixer 10	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
11	SBR Mixer 11	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
12	SBR Mixer 12	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
13	SBR Mixer 13	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
14	SBR Mixer 14	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0

Project :	Bangalore Water Supply & Sewerage Project(II). Treatment Plants at Doddabelle & Yellamallappachetty and Intermediate Sewage Pumping Station and Pumping Mains at Sadarmangala
Client	Bangalore Water Supply & Sewerage Board (BWSSB)
Consultant	Nippon Jogesuido Sekkei Co., Ltd., (Japan)
	Mott Macdonald Ltd., (UK)
	Tata Consulting Engineers Ltd., (India)
CONTRACTOR	KEC-WATERLEAU JV
E&I SYSTEM INTEGRATOR	SCHNEIDER-ELECTRIC INDIA PVT. LTD.
Doc. Name	ELECTRICAL LOAD LIST FOR YELLAMALLAPPACHETTY
Doc. No.	A4-KT001-YSP-E-01-01

Schneider Electric

ELECTRICAL LOAD LIST - YELLAMALLAPPACHETTY STP

Sr.No	DESCRIPTION	Min. Working Units (Nos.)	Min. Standby Units (Nos.)	Pump Capacity (m3/hr)	Pump Head (mwc)	Min. Pump efficiency (%)	BKW requirement	KW of the Motor selected (KW)	Load Factor / Duty Factor	Total Working Load (KW)	Total Standby Load (KW)	Power Factor	Load Factor	Diversity Factor	Supply Voltage (V)	Feeder Type	Duty cycle (C/I)	Continuous Runing Load in (KVA)
15	SBR Mixer 15	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
16	SBR Mixer 16	0	1	-	-	-	-	9.6	0.9	0	8.64	0.8	1	1	415	Star Delta	C	0
17	SBR Scum Pump 1	1	0	8.4	20	22	2.12	3	1	2.12	0	0.8	1	1	415	DOL	C	2.65
18	SBR Scum Pump 2	0	1	8.4	20	22	2.12	3	1	0	2.12	0.8	1	1	415	DOL	C	0
19	WAS Pump 1	1	0	105	13	69	5.5	7.5	1	5.5	0	0.8	1	1	415	VFD	C	6.875
20	WAS Pump 2	1	0	105	13	69	5.5	7.5	1	5.5	0	0.8	1	1	415	VFD	C	6.875
21	WAS Pump 3	1	0	105	13	69	5.5	7.5	1	5.5	0	0.8	1	1	415	VFD	C	6.875
22	WAS Pump 4	1	0	105	13	69	5.5	7.5	1	5.5	0	0.8	1	1	415	VFD	C	6.875
23	WAS Pump 5	0	1	105	13	69	5.5	7.5	1	0	5.5	0.8	1	1	415	VFD	C	0
24	WAS Pump 6	0	1	105	13	69	5.5	7.5	1	0	5.5	0.8	1	1	415	VFD	C	0
25	Decanter 1	1	0	-	-	-	-	0.5	1	0.5	0	0.8	1	1	415	Supply feeder	C	0.625
26	Decanter 2	1	0	-	-	-	-	0.5	1	0.5	0	0.8	1	1	415	Supply feeder	C	0.625
27	Decanter 3	1	0	-	-	-	-	0.5	1	0.5	0	0.8	1	1	415	Supply feeder	C	0.625
28	Decanter 4	1	0	-	-	-	-	0.5	1	0.5	0	0.8	1	1	415	Supply feeder	C	0.625
29	Borewell Pump 1	1	0	20	50	-	4.5	4.5	0.8	3.6	0	0.8	1	1	415	DOL	I	4.5
30	Borewell Pump 2	0	1	20	50	-	4.5	4.5	0.8	0	3.6	0.8	1	1	415	DOL	I	0
31	PDB for valve	1	0	-	-	-	-	20	0.5	10	0	0.8	1	1	415			12.5
a	SBR Basin 1 Air Line	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125
b	SBR Basin 1 Discharge Line	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
c	SBR Basin 2 Air Line	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125
d	SBR Basin 2 Discharge Line	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
e	SBR Basin 3 Air Line	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125
f	SBR Basin 3 Discharge Line	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	0.05625
g	SBR Basin 4 Air Line	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	2.0625
h	SBR Basin 4 Discharge Line	1	0	-	-	-	-	0.09	0.5	0.045	0	0.8	1	1	415	Supply feeder	I	2.0625
i	Treated Water line 1 of Basin 3	1	0	-	-	-	-	3.3	0.5	1.65	0	0.8	1	1	415	Supply feeder	I	2.0625
j	Treated Water line 2 of Basin 3	1	0	-	-	-	-	3.3	0.5	1.65	0	0.8	1	1	415	Supply feeder	I	2.0625
k	Treated Water line 1 of Basin 4	1	0	-	-	-	-	3.3	0.5	1.65	0	0.8	1	1	415	Supply feeder	I	0.53125
l	Treated Water line 2 of Basin 4	1	0	-	-	-	-	3.3	0.5	1.65	0	0.8	1	1	415	Supply feeder	I	0.53125
m	Gate for Basin 1	1	0	-	-	-	-	0.85	0.5	0.425	0	0.8	1	1	415	Supply feeder	I	0.53125
n	Gate for Basin 2	1	0	-	-	-	-	0.85	0.5	0.425	0	0.8	1	1	415	Supply feeder	I	0.53125
o	Gate for Basin 3	1	0	-	-	-	-	0.85	0.5	0.425	0	0.8	1	1	415	Supply feeder	I	0.53125
p	Gate for Basin 4	1	0	-	-	-	-	0.85	0.5	0.425	0	0.8	1	1	415	Supply feeder	I	0.1125
q	Electrical Winch 1	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125
r	Electrical Winch 2	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125

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	ELECTRICAL LOAD LIST FOR YELLAMALLAPPACHETTY
	A4-KT001-YSP-E-01-01

ELECTRICAL LOAD LIST - YELLAMALLAPPACHETTY STP

DESCRIPTION	Min. Working Units (Nos.)	Min. Standby Units (Nos.)	Pump Capacity (m3/hr)	Pump Head (mwc)	Min. Pump efficiency (%)	BKW requirement	KW of the Motor selected (KW)	Load Factor / Duty Factor	Total Working Load (KW)	Total Standby Load (KW)	Power Factor	Load Factor	Diversity Factor	Supply Voltage (V)	Feeder Type	Duty cycle (C/I)	Continuous Runing Load in (KVA)
Process Air Blower MCC																	
EOT Crane (5 T)	1	0													Supply feeder		
Motor For LT	2	0	-	-	-	-	0.55	0.9	0.99	0	0.8	1	1	415	RDOL	I	1.2375
Motor For CL	1	0	-	-	-	-	0.55	0.9	0.495	0	0.8	1	1	415	RDOL	I	0.61875
Dressing Motor	1	0	-	-	-	-	3.7	0.9	3.33	0	0.8	1	1	415	RDOL	I	4.1625
POS for Motorized Valves				-	-	-									Supply feeder	I	
Blower Header Line 1	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125
Blower Header Line 2	1	0	-	-	-	-	0.18	0.5	0.09	0	0.8	1	1	415	Supply feeder	I	0.1125
Process Air Blower 1	1	0	4000	8	85	121	150	1	121	0	0.8	1	1	415	VFD	C	151.25
Process Air Blower 2	1	0	4000	8	85	121	150	1	121	0	0.8	1	1	415	VFD	C	151.25
Process Air Blower 3	1	0	4000	8	85	121	150	1	121	0	0.8	1	1	415	VFD	C	151.25
Process Air Blower 4	1	0	4000	8	85	121	150	1	121	0	0.8	1	1	415	VFD	C	151.25
Process Air Blower 5	0	1	4000	8	85	121	150	1	0	121	0.8	1	1	415	VFD	C	0
AC1	1	0	-	-	-	-	2	1	2	0	0.8	1	1	415	Supply feeder	C	2.5
AC2	0	1	-	-	-	-	2	1	0	2	0.8	1	1	415	Supply feeder	C	0
Blower Jacket Cooling Pump 1	1	0	12	20	48	1.39	2.2	1	1.39	0	0.8	1	1	415	MPCB	C	1.7375
Blower Jacket Cooling Pump 2	0	1	12	20	48	1.39	2.2	1	0	1.39	0.8	1	1	415	MPCB	C	0
Misc MCC																	
Dewatering Pump 1	1	0	-	-	-	-	2.2	0.9	1.98	0	0.8	1	1	415	MPCB	I	2.475
Dewatering Pump 2	1	0	-	-	-	-	2.2	0.9	1.98	0	0.8	1	1	415	MPCB	I	2.475
Dewatering Pump 3	1	0	-	-	-	-	2.2	0.9	1.98	0	0.8	1	1	415	MPCB	I	2.475
Dewatering Pump 4	0	1	-	-	-	-	2.2	0.9	0	1.98	0.8	1	1	415	MPCB	I	0
AC	1	0	-	-	-	-	2	1	2	0	0.8	1	1	415	Supply feeder	C	2.5
Lab	1	0	-	-	-	-	12	1	12	0	0.8	1	1	415	Supply feeder	I	15
Total Load (in KW)									1049.24	385.26							

Enter kilowatts:

1434.5 kW

Enter power factor:

.8

Calculate Reset

Result in kilovolt-amps:

1793.125 kVA